



EV Charging

with CATCH Control and Fronius Wattpilot

This document provides an overview of the features available in the EV Charging features of the CATCH Control platform. This document also outlines the hardware and installation requirements.

CATCH Power
A trademark of Project H Pty Ltd
180 Dumaresq Street
Glen Innes
NSW 2370
Australia
Ph: +64 2 5700 5717
W: www.Catchpower.com.au
E: sales@catchpower.com.au

For CATCH Power to be able to properly manage your EV Charging system three things are required:

1) An Electric Vehicle

We don't really care what the Electric Vehicle is; But be careful.. People say you can tell a lot about a person from their choice of EV.



2) An EV Charger



The technical term for an EV Charger is **Electric Vehicle Supply Equipment** (or EVSE for short).

You can't just get any old EVSE. The EVSE needs to be OCPP compliant and support the *Smart Charging* profile.

You can go to our website for a list of EV Chargers that we have tested and know will give you trouble free charging.

<http://catchpower.com.au/evse>

3) A CATCH Control Unit

You will more than likely have a CATCH Control unit installed if you have a good quality solar installation. This device is at the heart of your homes solar control system. This device is what enables CATCH Power to provide a high-quality EV charging experience.

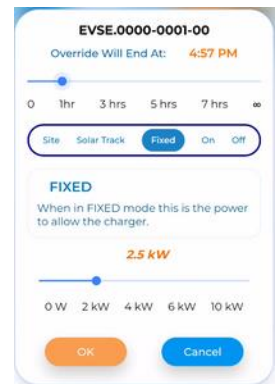




The monocle comes with the CATCH Control device. It offers way more than EV Charging, but we won't get into that here. What follows are a list of the features you get with the CATCH EV Charging control.

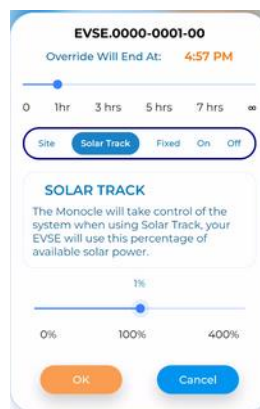
Set Point Control:

Turn your EV Charger on or off, at the press of a button. Or alternatively decide how fast you want the charging rate to be.

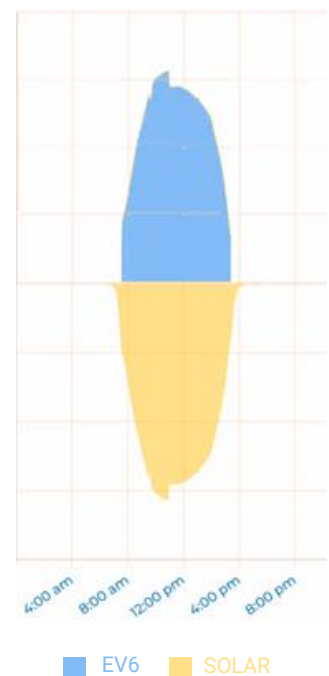


Advanced Solar Tracking:

With Advanced Solar Tracking you get to decide how much of your solar will be used to charge your car. You can choose all of it, some of it. Or even to use more than what is available.



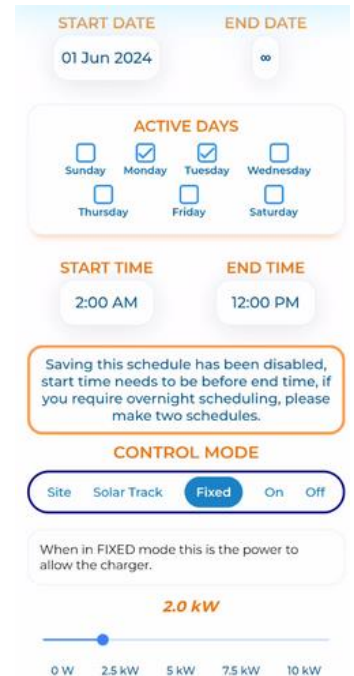
You can even choose to just use solar that would have otherwise been exported to the grid.



Scheduling:

The scheduling system gives you full control of your EV charging. You decide when, and how the EVE gets charged.

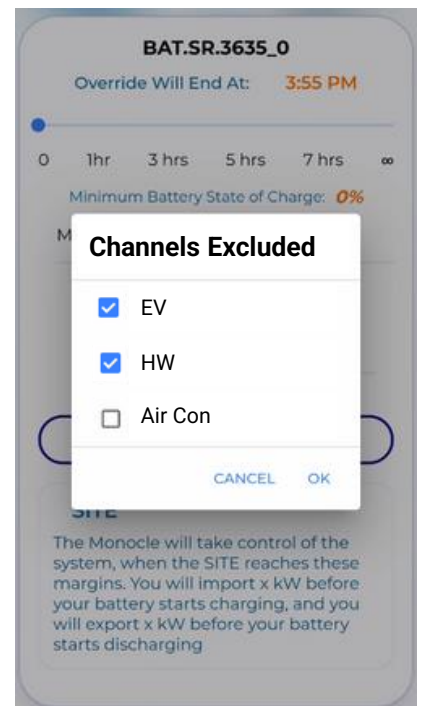
Plan as far out into the future as you like. And don't worry you can override the scheduling at the press of a button and resume the scheduled program any time.



Battery Lockout:

The real power of the CATCH EV Charging solution is in the way it works with the rest of your home. If you have batteries installed, you don't need to worry about the batteries ever discharging into the EV...that would be silly.

With the CATCH Battery Lockout technology, we ensure the batteries are used for their intended purpose. To keep your electricity bill low.

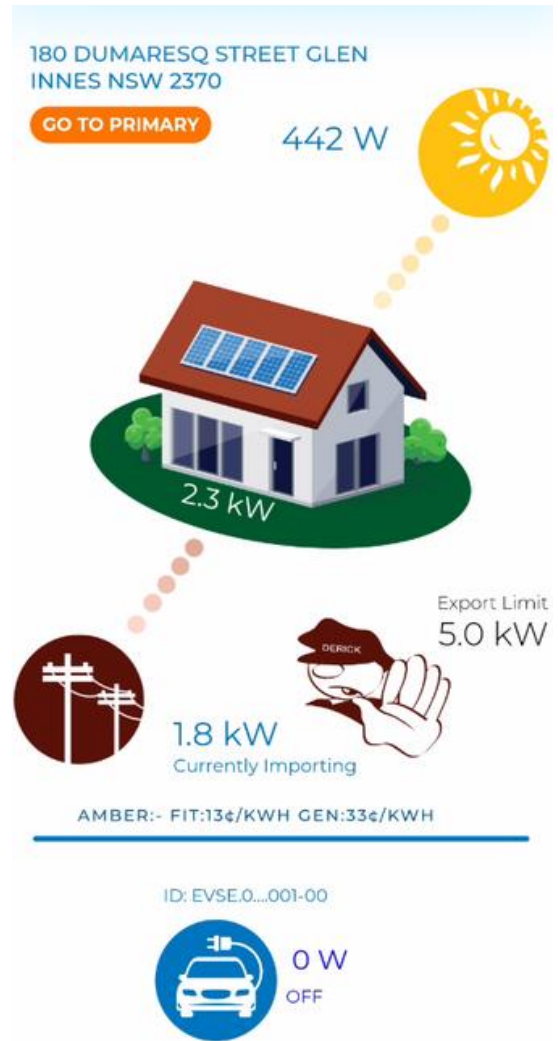


Access to faster charging rates

The CATCH EV Charging system is connected to your Electricity Supplier and knows when the GRID is being overloaded; we will slow your charging down when this happens. As a result, your electricity supplier allows faster charging rates because they know we will slow it down when needed.

Energy Market Control

Did you know you can make money when charging your EV? If you are with a Wholesale market energy retailer like Amber we can turn your EV on when wholesale prices are low or negative, and turn it off when it is expensive to charge.

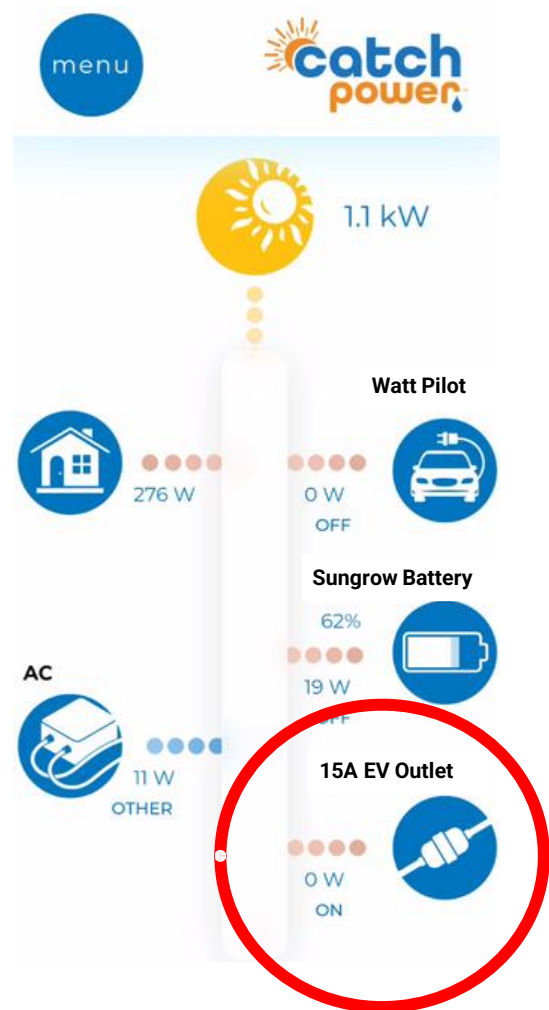


Secondary EV Plug Control

Many premises now have two EV's to charge. Most homes do not have the power supply to cope with two EV Chargers. A 15A EV outlet is a good way to charge your second car while waiting for the primary charger.

With CATCH Control that 15A outlet can be controlled in many of the same ways as your primary EV Charger can.

- Turn your charging ON/OFF
- Battery Lockout
- Scheduling
- Energy Market Control
- A reduced version of Solar Tracking



Bill Optimisation

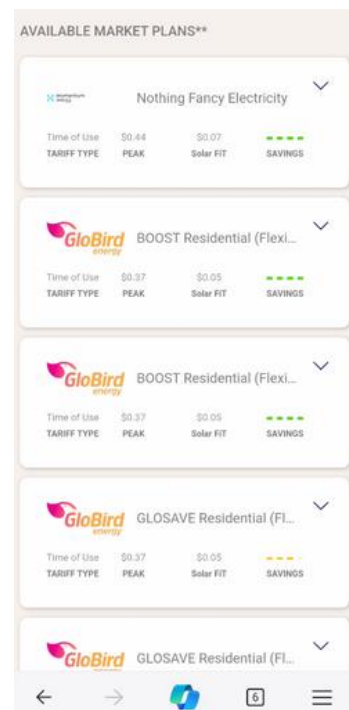
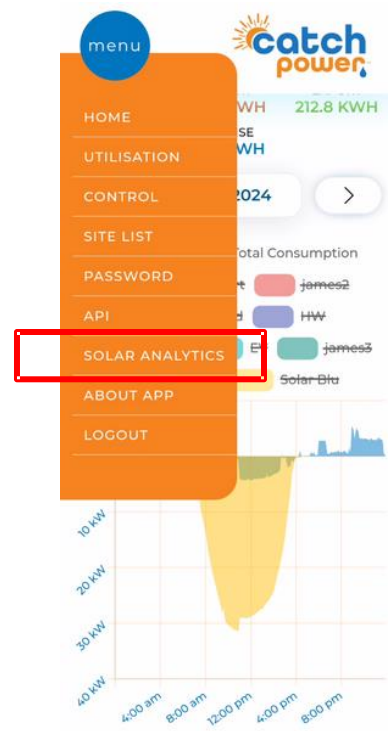
One of the most overlooked aspects of coordinating your EV Charging is choosing the right Electricity Plan. This can be complicated when you have Solar and Batteries.

When you use CATCH Control for your EV Charging you automatically get access to our Plan Optimiser technology. We will tell you which plan best suits your needs.

How does it work?

1. We get all the electricity plans available to you.
1. We give that to our AI algorithms that use your consumption data.
1. We show you the list of energy plans that give you the cheapest bill.

Then all you need to do is make a phone call and you know you are on the best plan.



The screenshot shows the 'AVAILABLE MARKET PLANS**' section of the app. It lists several energy plans with their respective details:

Plan Name	Time of Use	Tariff Type	Peak	Solar FIT	Savings
Nothing Fancy Electricity	\$0.44	PEAK	\$0.07	---	---
GloBird BOOST Residential (Flexi...)	\$0.37	PEAK	\$0.05	---	---
GloBird BOOST Residential (Flexi...)	\$0.37	PEAK	\$0.05	---	---
GloBird GLOSAVE Residential (FL...)	\$0.37	PEAK	\$0.05	---	---
GloBird GLOSAVE Residential (FL...)	\$0.37	PEAK	\$0.05	---	---

Tech Specs:

CSIP-AUS	Compliant
Communications	WiFi
Control Technique	OCPP 1.6J
Multiple EV Control	Yes



READ THE CATCH Control Electricians Guide

CATCH Control must be installed by a licensed electrician. This guide assumes the CATCH Control has already been installed.

The Electricians Guide found at <https://www.catchpower.com.au/tech-docs-1>

1 - Getting the right software on your phone.

Download it from your phone's app store.



CATCH Power Configurator
CATCH Power

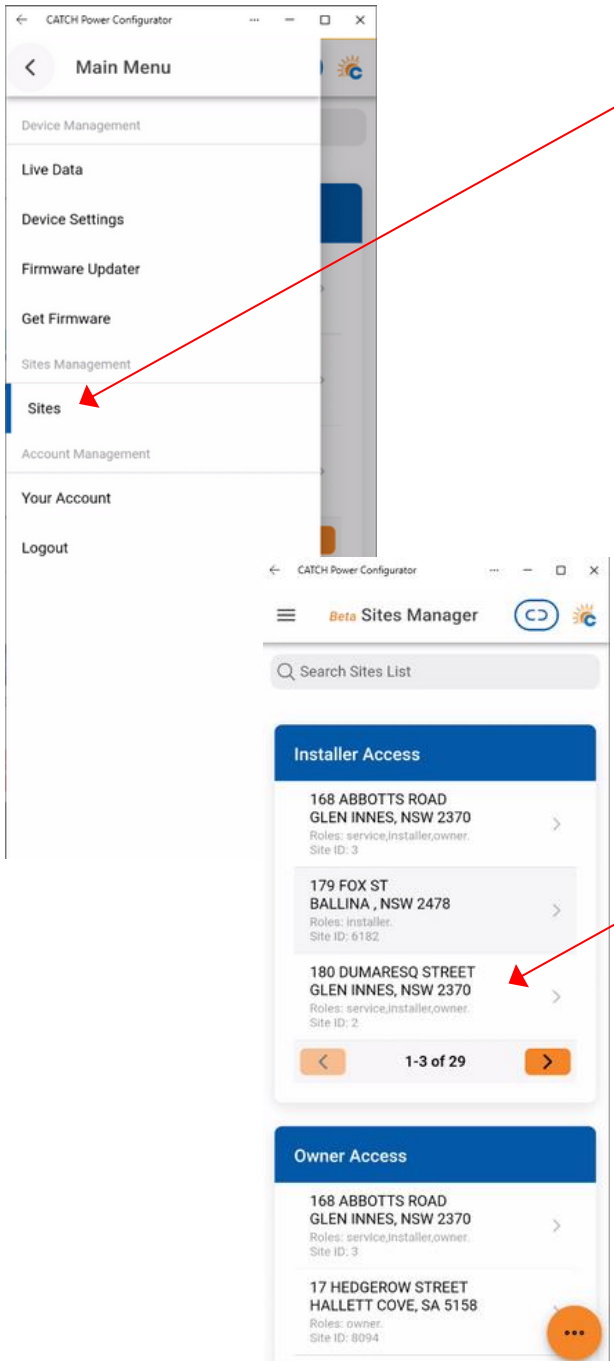
The “**CATCH Power Configurator**” is used for setting up the hardware while you are on site

The installation process involves three steps:

1. Adding the EV Charger to the CATCH Site.
 1. Telling the EV Charger Where to get its commands from.
-

1 – Adding the EV Charger to the CATCH Site

- Open the “CATCH Power Configurator”, Log in with your installer account.

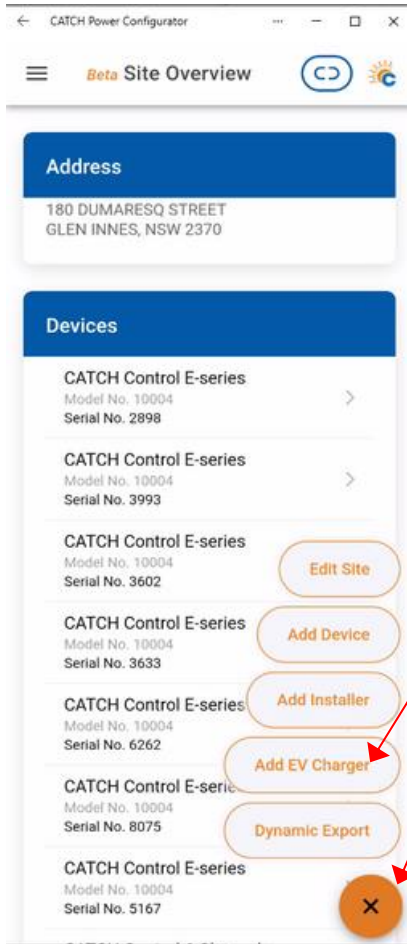


Open the menu and click on the **Sites** menu Option

Click on the Site you wish to register the EV Charger against.

Note: This is a new Site you will need to create it by pressing the orange button in the bottom right.

1 – Adding the EV Charger... continued



Click on the orange circle in the bottom right. Then click on **Add EV Charger**

1 – Adding the EV Charger... continued

CATCH Power Configurator

Add EV Charger

Select Device

Fronius WattPilot

Choose the inverter Brand. If your brand is not there Choose Generic OCPP.

Settings

Name *

My WPilot

Give it a name

Phases *

1

Is it single or 3 phase

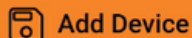
Connectors *

1

Current Limit (A) *

32

This will limit the per phase charging current to this value.

 Add Device

Add the Device

2 - Configuring the EV Charger

< EV Device

Device Details

Name: WattPilot
ID: 0000-0001-00

Settings

Name *
WattPilot

Phases *
1

Connectors *
1

Current I (A) *
32

Setup Information

Full URL:
wss://ocpp0.edde.world/ocpp16/0000-001-00

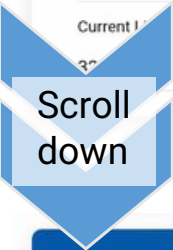
Base URL: wss://ocpp0.edde.world/ocpp16

OCPP ID: 0000-0001-00

Other Actions

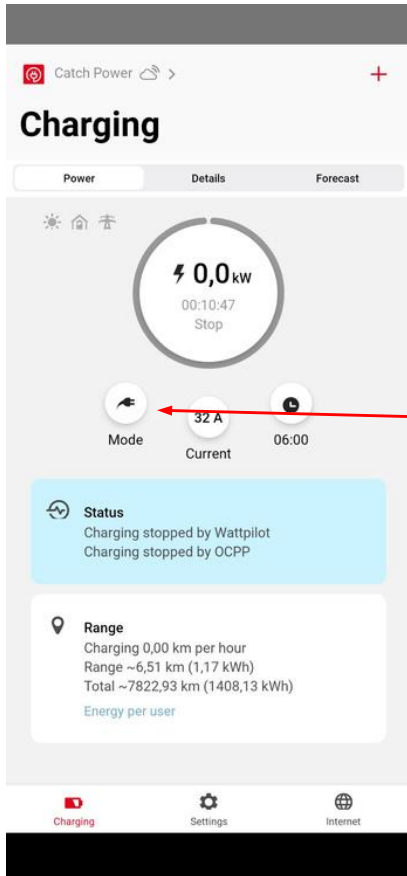
Remove Device >

Update Device



The Fronius WattPilot needs this value in particular.

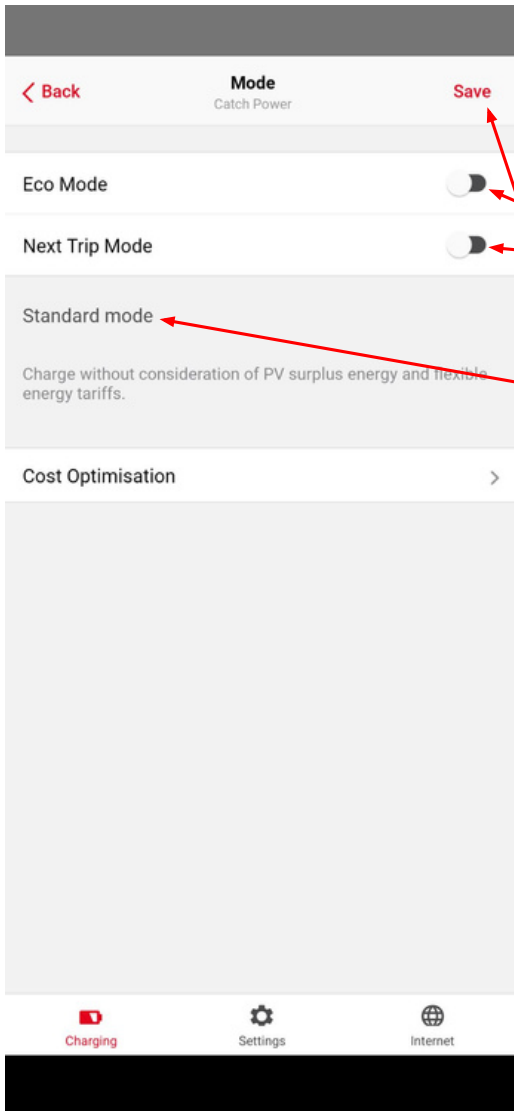
2 - Configuring the EV Charger... continued



Open the Solar.wattpilot app, and in that, open the WattPilot you just installed.

Tap on the **Mode** button.

2 - Configuring the EV Charger... continued

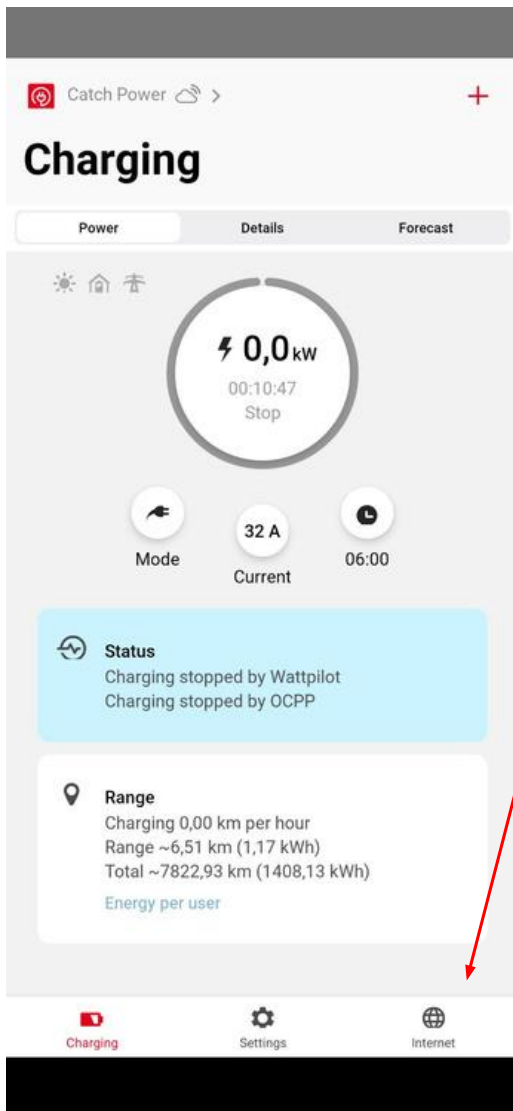


Make sure both of these switches are turned off.

This should read **Standard mode**

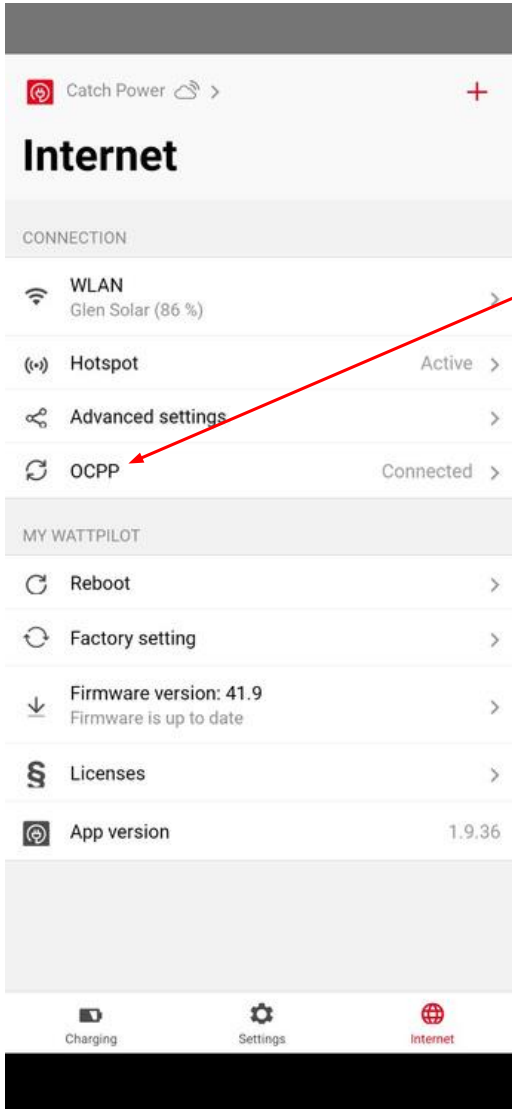
Tap **Save**. This will take you back to the main page.

2 - Configuring the EV Charger... continued



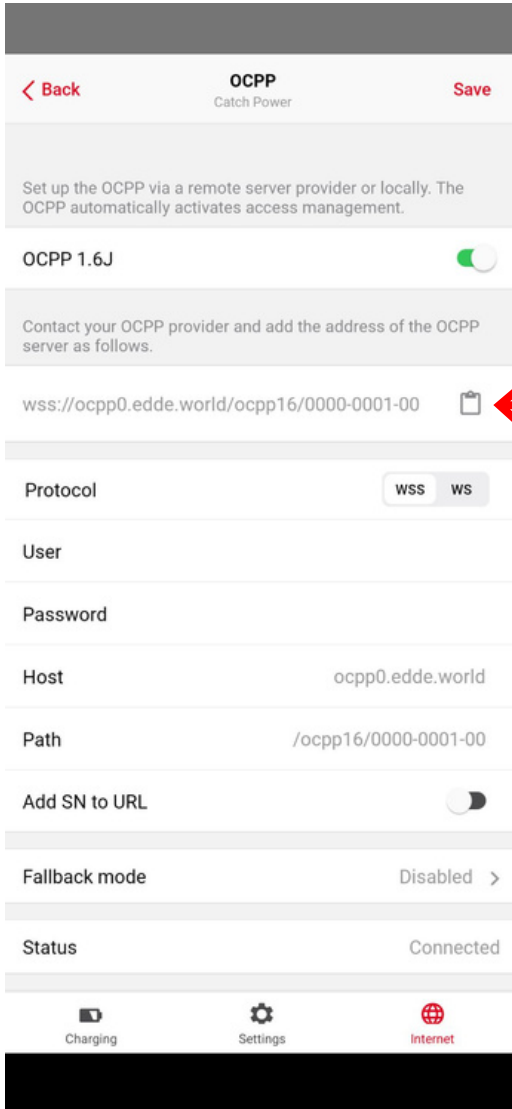
Tap Internet

2 - Configuring the EV Charger... continued



Tap **OCPP**

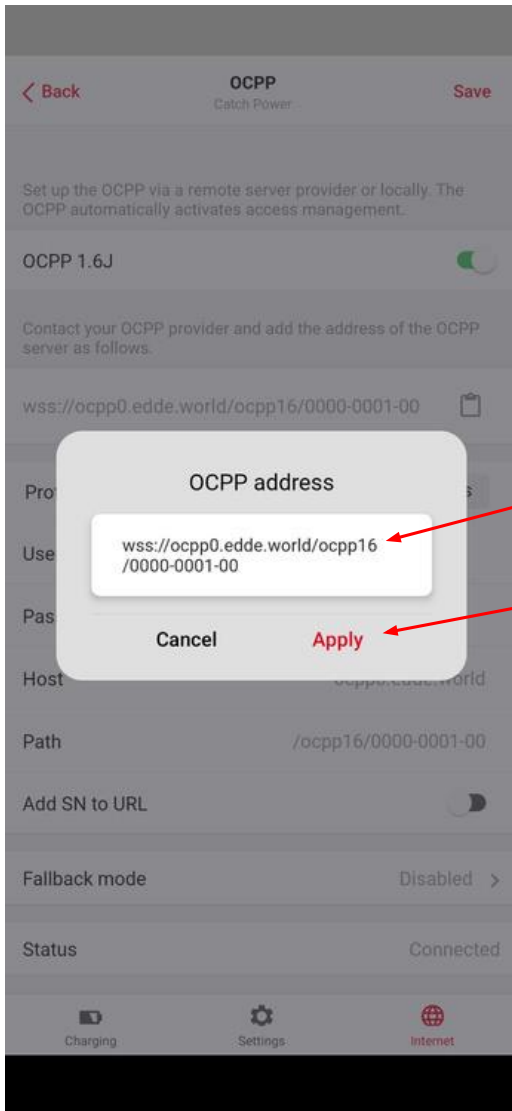
2 - Configuring the EV Charger... continued



Tap the clipboard button

Turn off the **Add SN to URL** switch

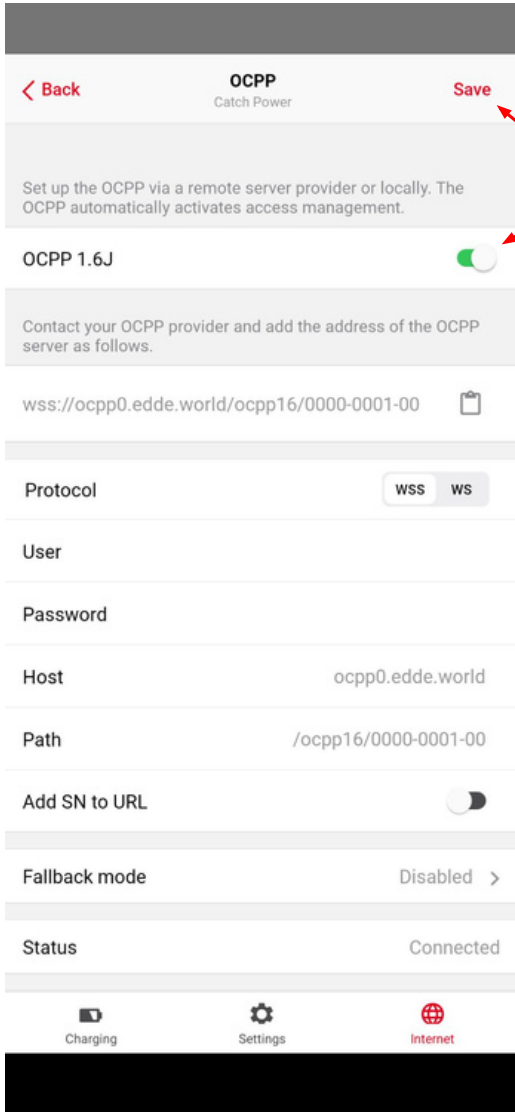
2 - Configuring the EV Charger... continued



Set this to the Full URL you copied from the Configurator.

Tap **Apply**

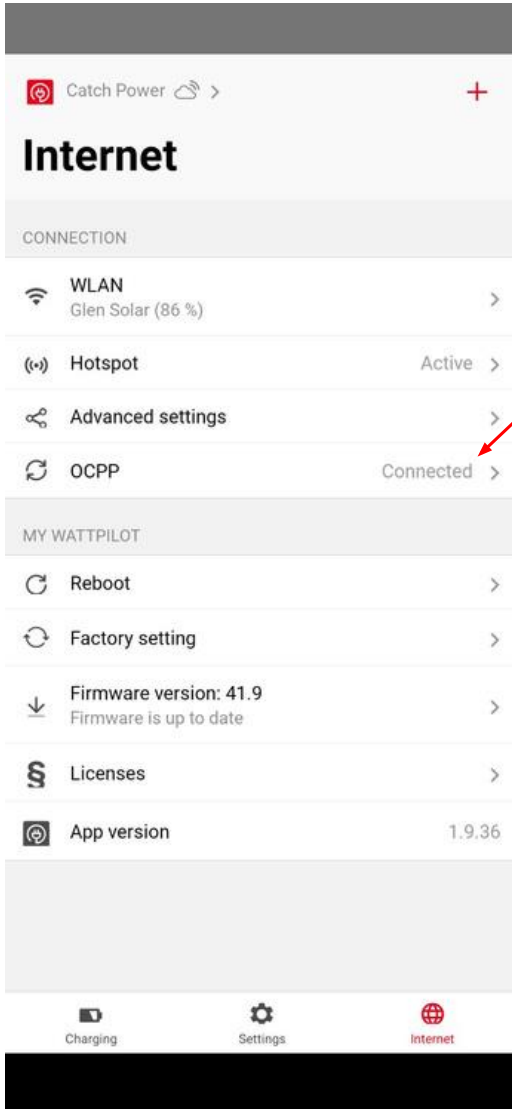
2 - Configuring the EV Charger... continued



Turn on the **OCPP 1.6J** switch

Tap **Save**

2 - Configuring the EV Charger... continued



After a few seconds, the **OCPP** field should say **Connected**